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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,475	04/24/2006	Haruki Toda	310067US2PCT	1274

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EXAMINER	
VALENTINE, JAMI M	
ART UNIT	**PAPER NUMBER**
2894	

NOTIFICATION DATE	DELIVERY MODE
09/16/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/507,475	TODA, HARUKI	
	Examiner	Art Unit	
	JAMI M. VALENTINE	2894	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-93* is/are pending in the application.

4a) Of the above claim(s) *1-77 and 83-93* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *78-82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/10/04, 6/29/07, 8/19/08, 12/07/09, 3/17/10, 5/13/10.

DETAILED ACTION

Election/Restrictions

1. **Claims 1-93** are pending in this application. Applicant's election **without** traverse of Group 7 (Claims 78-82) in the reply filed on 8/12/10 is acknowledged. **Claims 1-77 and 83-93** are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. **Claims 78-82** are examined in this Office action.

US National Phase of PCT

2. Acknowledgment is made that this application is the US national phase of international application PCT/JP03/00155 filed 10 January 2003 which designated the U.S. and claims benefit of JP 2002-102640, filed 4 April 2002.

Foreign Priority

3. Acknowledgment is made that the certified copy of the foreign priority document has been received in the national stage application from the International Bureau.

Information Disclosure Statement

4. Acknowledgment is made that the information disclosure statement has been received and considered by the examiner. If the applicant is aware of any prior art or any other co-pending applications not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

Drawings

5. There are no objections or rejections to the drawings.

Specification

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 78-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Chiang et al. (US Patent Application Publication No 6,339,544) hereinafter referred to as Chiang.

9. Per **Claim 78** Chiang discloses (see figures 1 and 14) a device, comprising

- a substrate (110)
- a plurality of memory cell arrays (see figure 1) stacked above the substrate, each said memory cell array having bit lines (10a) coupled to one ends of memory cells and word lines

(20a) coupled to the other ends, each said memory cell having a stacked structure of a variable resistance element (30) and a diode (25), the memory cell arrays being partitioned in the bit line direction and in the word line direction into a plurality of cell blocks each serving as an access unit (as in figure 1)

- a bit line select circuit formed on the substrate to select one of the bit lines in one of the cell blocks; and a word line select circuit formed on the substrate to select one of the word lines contained in of the cell blocks (described in column 10 lines 21-48).

10. Per **Claim 79** Chiang discloses (see figures 1 and 14) the device of claim 78, including

- where the bit line select circuit comprises: a plurality of sets of bit line select lines disposed in correspondence to a plurality of layers of the bit lines, respectively, each set being shared by a plurality of the cell blocks arranged in the word line direction, (see figure 1),
- a plurality of sets of bit line selecting transistors arranged in correspondence to the plurality of sets of bit line select lines to couple the bit line select lines to the corresponding bit lines in the cell blocks; (described in column 4 lines 15-25)
- a decode gate circuit (see figure 14)

11. Additionally, claim 79 recites the performance properties of the line select circuit (e.g. on which bit line driving signals are supplied) and the decode gate circuit (e.g. configured to select one of the cell blocks arranged in the word line direction and drive the bit line selecting transistors belonging to selected one of the cell blocks). This functional limitation does not distinguish the claimed device over the prior art, since it appears that this limitation can be performed by the prior art structure of Chiang. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the

prior art in terms of structure rather than function. In re *Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997) See MPEP 2114.

12. Per **Claim 80** Chiang discloses (see figures 1 and 14) the device of claim 78, including

- where the word line select circuit comprises: a plurality of sets of word line select lines disposed in correspondence to a plurality of layers of the word lines, respectively, each set being shared by a plurality of the cell blocks arranged in the bit line direction, (see figure 1),
- a plurality of sets of word line selecting transistors arranged in correspondence to the plurality of sets of word line select lines to couple the word line select lines to the corresponding word lines in the cell blocks; (described in column 4 lines 15-25)
- a decode gate circuit (see figure 14)

13. Additionally, claim 80 recites the performance properties of the line select circuit (e.g. on which word line driving signals are supplied) and the decode gate circuit (e.g. configured to select one of the cell blocks arranged in the bit line direction and drive the word line selecting transistors belonging to selected one of the cell blocks). This functional limitation does not distinguish the claimed device over the prior art, since it appears that this limitation can be performed by the prior art structure of Chiang. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re *Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429,1431-32 (Fed. Cir. 1997) See MPEP 2114.

14. Per **Claim 81** Chiang discloses (see figures 1 and 14) the device of claim 78, including where adjacent two memory cell arrays share the word lines disposed therein. (see figure 1)

15. Per **Claim 82** Chiang discloses (see figures 1 and 14) the device of claim 78, including where adjacent two memory cell arrays share the bit lines disposed therein. (see figure 1)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMI M. VALENTINE whose telephone number is (571)272-9786. The examiner can normally be reached on Monday-Friday 9am-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Nguyen can be reached on (571) 272-2402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jami M Valentine/
Examiner, Art Unit 2894

/JMV/